Model 435L

Owner's Guide

warranty

LIMITED PARTS AND LABOR WARRANTY

LoJack Corporation ("LoJack") warrants that if the alarm system (here-inafter the "Unit" and defined as the alarm module and, if installed during initial alarm system installation, external sensors and siren), exclusive of remote transmitters, installed in your vehicle proves to be defective in material or workmanship within two (2) years from the date of installation we will, at our option either replace the defective Unit or component, or provide without charge the labor and the parts necessary to remedy any such defect at a LoJack installation center. LoJack's responsibility is only to replace or repair the LoJack products and not for any additional payment, regardless of the nature. For a period of ninety (90) days after installation, LoJack will provide parts and labor or service to repair or replace any part of the remote trans-mitter which proves to be defective in material or workmanship. Batteries are not manufactured or warranted by LoJack. It is your responsibility to replace remote transmitter batteries as recommended in your Owner's Manual.

To obtain service under the Limited Parts and Labor Warranty contact the LoJack Service Department by calling 1-800-4-LOJACK. You must present your vehicle and dated proof of purchase to a LoJack Installation Technician at the time of service.

CONDITIONS, LIMITATIONS AND EXCLUSIONS

The LoJack products covered by this warranty are permanently installed on the original owner's vehicle and cannot be transferred to another vehicle. This LoJack warranty is limited to the original retail purchaser and is not transferable. Purchaser must comply with all the terms of this warranty.

If a warranty claim has been made, LoJack reserves the right to inspect the unit before repairing or replacing the unit. If upon inspection of the unit, no defect in material or workmanship is observed, then a labor charge may be assessed. LoJack, in its sole discretion, will determine what constitutes a unit that is defective in material, or workmanship.

This warranty does not cover any unit that may have been installed, removed, serviced or modified by anyone other than an authorized LoJack Technician. This warranty is void if: the unit's date code or serial number is defaced, missing or altered; the unit has been damaged by accident, misuse, neglect, or improper service; the unit has been modified or used in a manner contrary to its intended purpose. This warranty does not cover damage that results from faulty or leaky batteries, abuse, or damage caused by conditions in the vehicle, or improper voltage, or fire, flood, lightning or other acts of God.

LoJack reserves the right to make changes in design and improvements upon its products without assuming any obligation to install such changes upon any of its units previously manufactured or installed.

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contents

trademarks and copyrights

Code-Hopping™, Directed®, Doubleguard®, FailSafe®, Nuisance Prevention Circuitry®, NPC®, Silent Mode™, Soft Chirp®, Stealth Coding™, Stinger®, Valet®, and Warn Away® are all Trademarks or Registered Trademarks of Directed Electronics, Inc.

what is included

- Control module
- Two four-button remote transmitters
- A Stinger® dual-stage shock sensor (on-board the control module)
- Pre-wired Valet® switch with integrated red status LED
- Failsafe® Starter Kill relay (if equipped)

important information

This system has been designed to provide years of trouble-free operation. This system must be installed by an authorized LoJack technician. Installation of this product by anyone other than an authorized LoJack technician voids the warranty.
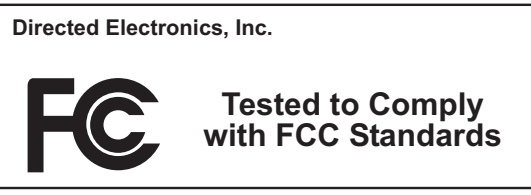
By carefully reading this owner's guide prior to using your security system, you will maximize the use of this system and its features.

system maintenance

This system requires no specific maintenance. Your remote is powered by a miniature 3-volt battery, type 2032, that lasts approximately one year under normal use. When the battery weakens, the LED on the remote will dim and operating range will be reduced. Refer to Standard Configuration section for battery access instructions.
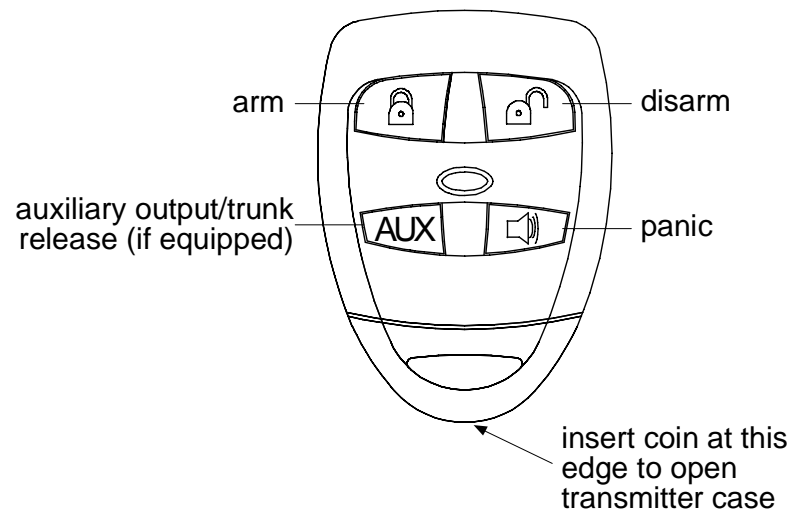
fcc/id notice

This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesirable operation.

Directed Electronics, Inc.

FC **Tested to Comply with FCC Standards**

caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this device.

standard configuration

arm

disarm

auxiliary output/trunk
release (if equipped)

AUX

panic

insert coin at this
edge to open
transmitter case

To access the battery, use a coin at the bottom of the transmitter to open the case.

transmitter functions

The functions of the buttons described below correspond to a transmitter programmed with the default Standard Configuration. Refer to illustration for layout of icon buttons.

standard configuration

Button

The arming and locking functions are controlled by pressing this button for one second.

Button

The disarming and unlocking functions are controlled by pressing this button for one second.

AUX Button

Silent Mode™ and an optional auxiliary function are controlled by pressing this button. Silent Mode™ works by pressing AUX for less than one second before arming or disarming. An optional auxiliary function, such as trunk release, is controlled by pressing and holding AUX for 1.5 seconds.

Button

Panic Mode is activated by pressing and holding for one second.

using your system

The buttons described in all instructions in this manual correspond to the standard configuration, unless otherwise specified.

manual (active) arming

The factory default is active arming. In this mode you can activate, or arm the security system and lock your vehicle's doors (if connected) by pressing for one second. When the system arms, you will hear the horn chirp and the parking lights will flash once. Once armed, the status LED will flash twice per second to indicate that the system is actively protecting your vehicle. If you hear a second chirp after arming and notice that the status LED is flashing in a grouped pattern, this signals Bypass Notification, which is described in the Diagnostics section of this manual.

automatic (passive) arming

The system can also be programmed to arm itself automatically 30 seconds after the ignition is turned off and the last vehicle door has been closed (called Passive Arming). Once the 30-second countdown period initiates, the status LED will flash twice as fast as it does when the system is armed. After 20 seconds, the horn will chirp once to warn that the system has only 10 seconds remaining prior to arming. The system is not actually armed at this point. The system arms itself at the 30-second mark. At this point, the vehicle doors will also lock (if programmed for Passive Locking) and the status LED will begin flashing twice per second to indicate armed status. If Passive Locking is activated, care must be taken to prevent the keys from being locked in the vehicle.

> *note:* Passive arming may qualify for a higher insurance discount. Check with your insurance agent

> *note:* If any protected entry point (such as a door or switch-protected trunk or hood) is open, Passive Arming will not engage. Additionally, each time a sensor is triggered during the 30-second arming countdown, the countdown starts over.

armed protection

Arming your security system protects your vehicle in the following ways:

- Light impacts to your vehicle will trigger the Warn Away® signal. The system will pulse the horn and flash the parking lights for a few seconds.

- Heavy impacts will trigger the system. The triggered sequence is 30 or 60 seconds of constant horn honking and flashing parking lights.

- If a door is opened, the system will immediately start pulsing the horn and flashing the parking lights. Three seconds later, the horn output changes to a continuous blast. This progressive response gives you time to disarm the system with your transmitter if you inadvertently open the door while the system is armed, while still providing instant response (even if the door is immediately closed).

> *note:* If programmed for 15 second entry delay, the system will provide an instant trigger 15 seconds after the door has been opened (see Programming Options)

- Turning on the ignition key triggers the same progressive response as opening a door.

- If equipped, the starter interrupt prevents the vehicle's starter from cranking.
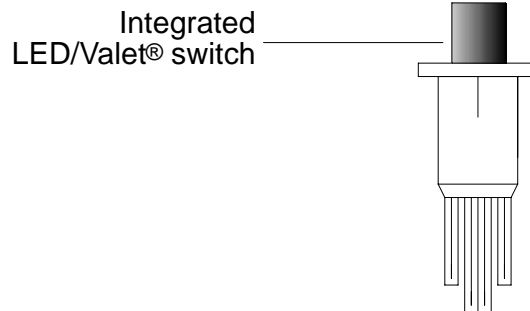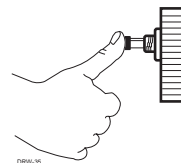
disarming

Press to disarm the security system and unlock the doors (if connected). Disarming is confirmed when the parking lights flash twice and the horn emits two chirps. The horn chirping either four or five times when disarming indicates Tamper Alert, which is described in the Diagnostics section of this manual.

disarming without a transmitter

This feature allows you to override the system without the transmitter should it be lost, damaged or disabled. To do this, you must have the vehicle's ignition key and know where the integrated LED/Valet® switch is located. The Valet® switch is activated by pressing the LED status indicator.

Integrated
LED/Valet® switch

Turn the ignition to the "run" position. Press and release the integrated LED/Valet® switch, within 10 seconds. After a few seconds the LED will stop flashing

DRW-94

DRW-35

8

and the vehicle should start. If it does not, you may have waited too long. Turn the ignition off and try again.

> *Important: The Valet® switch can be programmed to respond to 1-5 presses for the disarm function. The factory default setting is one pulse.*
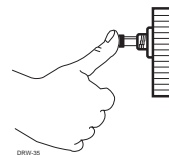
valet® mode

Valet® Mode prevents your system from arming and triggering either automatically or with the transmitter. In Valet® Mode, all convenience functions (door locks, trunk release, etc.) will remain operational. This feature is useful when washing or servicing your vehicle.

To enter or exit Valet® Mode with the integrated LED/Valet® switch:

1. Turn the ignition on.
2. Turn the ignition off.
3. Press and release the integrated LED/Valet® switch within 10 seconds.

The status LED will light steadily if you are entering Valet® Mode and will turn off if you are exiting Valet® Mode.

remote valet®

You can also enter or exit Valet® Mode using your remote transmitter:

1. **Open any vehicle door.**
2. Press 🔒 .
3. Press 🔓 .
4. Press 🔒 again.

The status LED will light solid if you are entering Valet® Mode and will turn off if you are exiting Valet® Mode.

silent mode™

Use Silent Mode™ to temporarily turn off the arming or disarming chirps by briefly pressing AUX before either arming or disarming. The confirmation chirp(s) will be eliminated for that one operation only. To permanently turn off the arming and disarming chirps, see programming options.

> *note: The Warn Away® Response to lighter impacts is bypassed if the system is armed using the Silent Mode™. This ensures that the horn does not chirp in an environment where you don't want chirps to be emitted. The system is still capable of being triggered by heavier impacts; only the Warn Away® Response generated by light impacts is bypassed.*

panic mode

If you are threatened in or near your vehicle, pressing 🔊 on your remote transmitter for 1.5 seconds will trigger your alarm system and attract attention. The horn will sound and the parking lights will flash for 30 seconds. To stop the Panic Mode at any time, press 🔒 , 🔓 , or 🔊 .

10

nuisance prevention circuitry®

Your system has Nuisance Prevention Circuitry® (NPC®) to prevent annoying repetitive trigger sequences caused by faulty door pin switches or environmental conditions such as thunder, jackhammers, airport noise, etc.

Here's how NPC® works: If the alarm is triggered by the same sensor or switch three times within a 60-minute period, your system interprets this pattern of triggers as false alarms. After the third trigger, your system ignores, or bypasses, that sensor or switch (along with any other sensors or switches sharing the same zone) for 60 minutes. If the bypassed sensor is triggered again while it is already being bypassed, the 60-minute bypass period will start over. This ensures that a sensor that is continually being triggered will remain bypassed.

note: Arming and disarming the system does not reset the Nuisance Prevention Circuitry®. The only ways to reset a bypassed zone are for that zone not to be triggered for 60 minutes or to turn the ignition key on. When testing your system, it is important to remember that this circuitry can cause zones to be bypassed and appear to not work. If five chirps are heard when disarming the system, the NPC® was engaged. To clear the memory, turn the ignition key on.

diagnostics

The microprocessor at the heart of your system has the ability to constantly monitor all of the switches and sensors connected to it. It can detect any faulty switches or sensors and prevent them from disabling the entire system. It can also record and report any triggers that occur when you are away from your vehicle.

arming diagnostics

If the security system is armed at the same time that an input is active (door opening, sensor triggering, etc.), you will hear one chirp to indicate arming and a second chirp to indicate Bypass Notification. A Bypass Notification chirp means that the system ignores the input that was active when the system was armed, until that input ceases. Three seconds after that input ceases, the system will resume normal monitoring. For example, if your vehicle has an interior light exit delay and you arm the system before the light turns off, you may hear a second Bypass Notification chirp. Once the light turns off, however, the system resumes normal monitoring.

> *note:* *Bypass Notification does not occur when the system is in Silent Mode or if the chirps have been programmed by the installer not to sound.*

disarming diagnostics

Your system has a Tamper Alert feature that notifies you of triggers that occur while you are away from your vehicle. If you hear four chirps when you disarm, this indicates that the system was triggered in your absence. If you hear five chirps when you disarm, this indicates that a specific zone was triggered so many times that the Nuisance Prevention

12

Circuitry® has bypassed that zone. In both cases, the pattern of the flashing status LED will indicate which zone was triggered (see Table of Zones). The system retains this information in its memory and will continue to chirp four or five times each time the system is disarmed, until the next time the ignition is turned on.

table of zones

A zone is represented by the number of LED flashes used by the system to identify a particular type of input. Standard input assignments are listed below.

ZONE (Number LED Flashes)	DESCRIPTION
1	Instant trigger - often used for hood/trunk pin switches
2	Instant trigger - a heavier impact detected by the shock sensor
3	Door switch trigger
4	Instant trigger—for optional sensors
5	Ignition trigger

code hopping®

The receiver and transmitter use mathematical formulas called algorithms to change their codes each time the transmitter is used. This Code Hopping® technology has been developed to increase the security of the unit. By following this set code sequence, the receiver and transmitter stay synchronized, even if the remote transmitter is used out of range of the vehicle. If, however, the transmitter is pressed many times out of range of the vehicle, or the battery is removed, the transmitter may get temporarily out of sync and fail to operate the system. To resynchronize the remote transmitter, simply press several times within range of the vehicle. The system will automatically resynchronize and the transmitter will respond normally.

rapid resume logic

Your security system stores its current operational state in non-volatile memory, so that if power is lost and then reconnected, the system will recall the stored state from memory. For example, if the system is in Valet® Mode when the battery is disconnected, it will still be in Valet® Mode when the battery is reconnected. This applies to all system features, including arming, disarming, and Valet® Mode.

programming options

Programming options control your system's normal, operational set-up. Most options do not require additional parts, but some may require installation labor.

The following is a list of the program settings, with the factory settings in **bold**:

- **Active** Arming or Passive Arming (automatic arming 30 seconds after the last door is closed).

- Arming and disarming confirmation horn chirps, **On** or Off.

- Ignition controlled door lock feature, **On** or Off. With this feature on, the doors will lock three seconds after the ignition key is turned on, and unlock when the ignition is turned off. The system also prevents the doors from locking when the ignition is turned on while any vehicle door is open.

- **Active** Door Locking (only when arming with the transmitter) or Passive Door Locking (with Passive Arming).

- Valet® Switch Pulse Count: The number of times the Valet® switch needs to be pressed to disarm the system. One to five pulses can be programmed, with the default setting being **one pulse**.
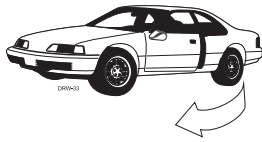
programming settings

The following procedure outlines the steps required to change the feature settings detailed in the programming options section.
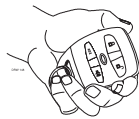
To enter programming mode:

1. Open the drivers door:

2. Turn the ignition On, then Off:

3. Select a feature: Press and release the integrated LED/Valet® switch the number of times corresponding to the step you wish to change (see systems features menu). For example, to access passive arming, press and release once. Then press the button once more and HOLD it. The horn will chirp once (equal to the step you have accessed). Continue to hold down the switch and proceed to step 4.

4. Program the feature: While holding the integrated LED/Valet® switch, you can toggle the selected feature on and off using the remote transmitter. Pressing the arm button that locks the doors will select the one chirp setting. Pressing the disarm button will select the two chirp setting. Release the integrated LED/Valet® switch.

> *note:* The valet$^{®}$ pulse count feature (8) and the channel 3 time output (9) have five possible settings. Pressing unlock will toggle through all the possible settings.

system feature menu

Step	One Chirp*	Two Chirps*
1	**Active** arming	Passive arming
2	Audible arm/ disarm confirmation **ON**	Audible Arm/disarm confirmation OFF
3	Ignition-controlled locking **ON**	Ignition-controlled locking OFF
4	Ignition-controlled unlocking **ON**	Ignition-controlled unlocking OFF
5	**Active** locking	Passive locking
6	**0.8 second** door lock pulses	3.5 second door lock pulses
7	**Single** unlock pulse	Double unlock pulse
8	Door trigger error chirp ON	Door trigger error chirp **OFF**
9	Ignition-controlled domelight **ON**	Ignition-controlled domelight OFF
10	Valet® switch input: **1 Pulse**	Valet® switch input: 2-5 Pulses
11	Channel 3: **validity**	Channel 3: latched/latched, reset with ignition;30-second timed/second unlock/delayed accessory output.

* Default settings are indicated in **bold** type.

once a feature is programmed

- Other features can be programmed.
- The Programming Mode can be exited if programming is complete.

to access another feature

Press and release the LED/Valet® switch the number of times necessary to advance from the feature you just programmed to the next one you want to program. Then press the integrated LED/Valet® switch once more and hold it. For example, if you just programmed the third feature and you would like to program the seventh feature in the menu, you would: Press and release the integrated LED/Valet® switch four times. Then press it once more and hold it. The horn would chirp seven times to confirm access to the seventh feature.

to exit the programming mode

Do one of the following:

1. Close the open door.
2. Turn the ignition on.
3. No activity for longer than 15 seconds.

feature descriptions

1. ACTIVE/PASSIVE ARMING: When active arming is selected, the system will only arm when the transmitter is used. When set to passive, the system will arm automatically 30 seconds after the last door is closed. To alert the consumer of passive arming, the horn will chirp 20 seconds after the door is closed. This provides the consumer with an audible warning prior to the system actually arming. At the 30 second mark, the system will arm but the horn will not chirp.

2. AUDIBLE ARM/DISARM CONFIRMATION ON/OFF: This feature controls the chirps that confirm the arming and disarming of the system. In the ON setting (default) the horn will provide audible confirmation when arming and disarming the system. If programmed to the OFF position no horn chirps will be heard when arming and disarming.

3. IGNITION-CONTROLLED LOCKING ON/OFF: When turned on, the vehicle doors will lock three seconds after the ignition is turned on.

4. IGNITION-CONTROLLED UNLOCKING ON/OFF: When turned on, the vehicle doors will unlock when the ignition is turned off.

5. ACTIVE/PASSIVE LOCKING: If passive arming is selected in step 1, then the system can be programmed to either lock the doors when passive arming occurs, or only lock the doors when the system is armed via the transmitter. Active locking means the system will not lock the doors when it passively arms. Passive locking means that the system will lock the doors when it passively arms.

> *note:* Remember, when passive arming is selected, the unit will chirp 20 seconds after the last door is closed. The system does not actually arm or lock the doors until 30 seconds after the door has been closed.

6. DOOR LOCK PULSE DURATION: Some vehicles require longer lock and unlock pulses to operate the door lock vacuum pump. Programming the system to provide 3.5 second pulses, will accommodate the door lock interface in these vehicles. The default setting is 0.8 second door lock pulses.

7. DOUBLE PULSE UNLOCK ON/OFF: Some vehicles require two pulses on a single wire to unlock the doors. When the double pulse unlock feature is turned on, the unlock relay will provide two pulses instead of a single pulse.

8. DOOR TRIGGER ERROR CHIRP ON/OFF: With the door trigger error chirp programmed off, the system will not report an invalid zone on arming when the door trigger wire is active. This eliminates the extra chirps that occur when interfacing with vehicles that have exceptionally long dome light delay circuits.

9. IGNITION-CONTROLLED DOMELIGHT ON/OFF: If turned on, the system will turn on the domelight for 60 seconds when the ignition is turned off.
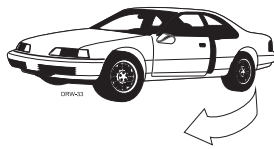
10. VALET® PULSE COUNT 1-5 PULSES: The system can be programmed to count the number presses of the integrated LED/Valet® switch before disarming the security system. The factory setting is one pulse. The unit can be set for 2 to 5 pulses.

11. CHANNEL 3 VALIDITY/LATCHED/LATCHED RESET WITH IGNITION/30 SECOND TIMED/SECOND UNLOCK OUTPUT/DELAYED ACCESSORY OUTPUT: Channel 3 can be programmed for these output configurations. The unit is set to the default validity output.
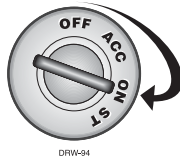
programming a new transmitter/receiver

The system comes with two transmitters that have been taught to the receiver. The receiver can store up to 4 different transmitter codes in memory. Use the following procedure to add transmitters to the system.

1. Open the driver's door

2. Turn the ignition on.

3. Enter transmitter program: Press and release the integrated LED/Valet® switch once. Then press and hold the integrated LED/Valet® switch once more. The horn will chirp and the LED will blink once. Continue to hold the switch and proceed to step 4.

4. Press the arm 🔒 **button:** While holding the integrated LED/Valet® switch, press the 🔒 button. The unit will chirp indicating successful programming. The transmitter is now set to the standard configuration. Refer to the Standard Configuration section of this guide.

5. Additional transmitter program: If you wish to program an additional transmitter, repeat steps 1 through 4. Remember that the system will only accept a maximum of 4 different transmitters.

glossary of terms

Control Module: The "brain" of your system. Usually hidden underneath the dash area of the vehicle. It houses the microprocessor that monitors your vehicle and controls all of the alarm's functions.

Failsafe® Starter Kill Relay (if equipped): An automatic switch controlled by the security system that prevents the vehicle's starter from cranking whenever the system is armed. The vehicle is never prevented from cranking when the system is disarmed, in Valet® Mode, or if the Starter Kill Relay fails.

Input: Any physical connection to the security system. An input can be provided through a sensor, pinswitch or by existing systems in the vehicle, such as ignition or courtesy lights.

Integrated LED/Valet® Switch: A small push-button switch with an integrated Red LED mounted somewhere in the vehicle. The switch is used to override the alarm when a transmitter is lost or damaged, or to put it into Valet® Mode. The LED indicates the status of your system. It is also used to report triggers and faults in the system or sensors. This switch is also used to program optional features.

Stinger® Double-Guard® Shock Sensor: A dual-stage shock sensor, which is located on the control module, and is designed to detect impacts to the vehicle or glass.

Transmitter: A hand-held, remote control that operates the various functions of the security system.

Warn Away® Response: Light impacts to the vehicle generate the Warn Away® Response, which consists of several seconds of horn chirps and flashing parking lights.

Zone: A zone is a separate input that the alarm can recognize as unique. Each input to the system is connected to a particular zone. Two or more inputs may share the same zone.

notes

Quick Reference Operating Card

To arm the system using your transmitter
- Press [icon] for one second to arm the system and lock the doors (if the door locks are connected to the system). When the system arms, you will hear one chirp and the parking lights will flash once.

To disarm the system using your transmitter
- Press [icon] to disarm the system and unlock the doors (if the door locks are connected to the system). When the system disarms, you will hear two chirps and the parking lights will flash twice.

Disarming without a transmitter
- To disarm without a transmitter, you must have the vehicle's ignition key and know where the integrated LED/Valet® switch is. Turn On the ignition key. Press the integrated LED/Valet® switch the pre-programmed number of times within 15 seconds. If the system does not disarm, you may have waited too long; turn the ignition off and repeat the process.

To enter or exit Valet® Mode
- To enter or exit Valet® Mode, turn the ignition key on and then off. Then press and release the integrated LED/Valet® switch within 10 seconds. The status LED will light steadily if you are entering Valet® Mode and will turn off if you are exiting Valet® Mode.

To activate Panic Mode
- Press and hold [icon] for 1.5 seconds.

To exit Panic Mode
- Press [icon] , [icon] , or [icon] .

To activate Silent® Mode
- Press [AUX] briefly before arming or disarming. The confirmation chirp(s) will be eliminated for that one operation only.

Cut along dotted line and fold for a quick and easy reference to keep in your purse or wallet.

25